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Bogaards, M.P.M.; Boogaart, R.J.U.; Barbiers L.C.J.

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The syntax of progressive and ingressive aanhet-constructions in Dutch

Maarten Bogaards, Ronny Boogaart & Sjef Barbiers Leiden University Centre for Linguistics (LUCL)

This paper presents a novel syntactic analysis of the much-debated Dutch *aanhet*-construction, e.g. *Pieter is aan het opruimen* 'lit. Peter is on the cleanup: Peter is cleaning up'. We show that the construction's syntactic behavior varies with the matrix verb: progressive *zijn* 'be' versus ingressive *gaan* 'go' and *slaan* 'hit'. Based on this variation, we argue that there are two *aanhet*-projections occupying different synchronic positions on a functional-to-lexical cline.

Keywords: Progressive aspect, Ingressive aspect, *aan het*-construction, Semi-lexicality, Dutch

1. Introduction

This paper is about a classic puzzle in Dutch grammar: the status of *aan het opruimen* 'cleaning up' in sentences like (1).

(1) Pieter *is aan het opruimen*.

'lit. Peter is on the cleanup: Peter is cleaning up.'

The construction in (1) consists of two parts: a constituent [$aanhet V_{INF}$] comprising the preposition aan 'on', the definite neuter determiner het 'the', and a variable infinitive (here: opruimen 'clean up'); and the verb zijn 'be' selecting this constituent. We can thus notate the pattern as in (2).¹

(2) [[aanhet V_{INF}] zijn]

It is widely assumed that (2) expresses *progressive aspect* in Dutch (i.a. Smits 1987; Boogaart 1999; Felser 2000; IJbema 2003; Van Pottelberge 2004; Booij 2008; Lemmens 2015; Bogaards *under review*): it construes the situation denoted by

^{1.} For reasons that will become clear in the following sections, we will notate *aanhet* as a single element.

 $[V_{\rm INF}]$ as dynamic and ongoing.² There is less consensus, however, about its internal syntactic structure. In fact, the construction is a notorious headache for high school teachers of Dutch grammar, who are faced with choosing an analysis for (2) as either a nominal or verbal predicate when there are compelling arguments for both (cf. Coppen 2006, 2009, 2021).³ Broekhuis et al. (2015) summarize the discussion by saying that the construction's "internal organization [...] is still far from clear and therefore in need of further investigation" (2015: 156).

As it stands, the discussion is at an impasse. The aim of this paper is to move the discussion in a productive direction by expanding the scope of study in two ways. First, we will move from the traditional 'nominal/verbal predicate'-distinction to two interrelated questions: whether aan(het) heads a PP or an extended VP, and whether it is a lexical or a functional head. Second, we will broaden the empirical basis for our analysis from just the aanhet-progressive to a wider variety of aanhet-constructions. The pattern in (2) may combine with other verbs than zijn, e.g. slaan 'hit' in (3), which trigger a different aspectual interpretation – in (3): ingressive aspect, i.e. construing the situation denoted by $[V_{INF}]$ as starting.

(3) Pieter *slaat aan het opruimen*. 'lit. Peter hits on the cleanup: Peter starts cleaning up.'

While cases like (3) are known from the literature, previous syntactic analyses of (1)–(3) are based mainly on the pattern with zijn as matrix verb.⁴ We will show that the pattern's behavior varies with the matrix verb (e.g. zijn vs. slaan) and use this observation to shed light on the internal structure of the aanhet-progressive.

2. Previous accounts

Aan 'on' prototypically functions as a preposition construing a spatial relation of "stick to" contact between two entities (Beliën 2002), as in (4) (from Beliën

^{2.} See Bogaards (2020:3) for an attempt at a comprehensive bibliography of research on this construction.

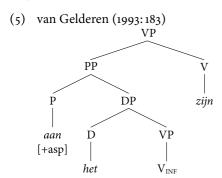
^{3.} This is our translation of the distinction between 'naamwoordelijk' and 'werkwoordelijk gezegde'.

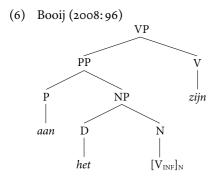
^{4.} A notable exception is the discussion in Broekhuis et al. (2015: 152–153) of copular verbs like *schijnen* 'seem' and *raken* 'get' in this construction, which they discuss as evidence for analyzing [aanhet $V_{\rm INF}$] as a complementive PP to *zijn*. These copulas will not be part of our comparison because they do not seem to make up a homogeneous class with *zijn* in this construction and therefore require closer investigation beyond the scope of this paper. For instance, contrary to *zijn*, high Prt (§ 3.2) is unacceptable for these copular verbs: *Hij schijnt/raakt* <*op> aan het <op>ruimen 'he starts/seems to be cleaning up'.

2002: 207). At first sight, the *aanhet*-progressive in (2) (repeated below) also looks like it contains a prepositional phrase (PP).

- (4) het schilderij *aan* de muur 'the painting on the wall'
- (2) [[aanhet V_{INF}] zijn]

Recent accounts are split on the issue of whether [aanhet $V_{\rm INF}$] is indeed a PP. Van Gelderen (1993) and Booij (2008) maintain the PP-position, deriving the pattern's progressive semantics in different ways: van Gelderen (1993: 183) assigns the P-head a feature [+asp] for 'aspect', as in (5); Booij (2008: 96) claims that the whole structure in (6) is tied to progressivity as a non-compositional 'constructional idiom'. Additionally, (5)–(6) diverge on the status of $[V_{\rm INF}]$: Booij (2008) sees it as the nominalized head of an NP, whereas van Gelderen (1993) considers it verbal. Note that all trees given in this section are our interpretations of previous analyses.



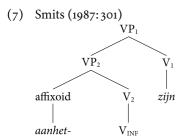


Smits (1987), Felser (2000) and IJbema (2003) move away from the idea that *aan* and *het* make up a PP plus embedded DP/NP. Instead, they all in some form take the position that *aanhet* constitutes a single head projecting something other than

a PP. The main argument for assuming that aanhet occupies one position is that het is paradigm-less, i.e. it cannot be substituted (e.g. by dit 'this' or dat 'that').

Smits (1987) suggests that this is playing out at the level of morphosyntax, likening aanhet- to the participial prefix ge- (e.g. lopen 'walk' > gelopen 'walked') and the infinitival prefixoid te (e.g. te lopen 'to walk'). This would mean that [aanhet V_{INE}] is a type of emerging verbal inflection tied to progressivity, see (7), with aanhet- behaving "preposition-like at present, with perhaps already some affixlike traits" [our translation] (Smits 1987: 301).5

Felser (2000) and IJbema (2003) make a similar move at the syntactic level. IJbema (2003) argues that aanhet developed diachronically from a prepositional into a functional head, specifically for progressive aspect (i.e. Asp_{prog} in the sense of Cinque 1999). Felser (2000) arrives at a similar synchronic conclusion by analyzing aanhet as an aspectual head Asp taking the projection of [V_{INF}] as its complement. (8) gives a representation of these accounts, combining Felser's (2000) general Asp-head and IJbema's (2003) specification of zijn as a V-head selecting AspP as its complement.⁶ What (7)–(8) have in common is that they situate the pattern's progressive meaning in the functional contribution of aanhet, and that merging aanhet with $[V_{\text{INF}}]$ results in a monoclausal verbal constituent.





(8) Felser (2000: 178); IJbema (2003: 18)

Asp aanhet

^{5.} If the affixoid is a head, then VP_2 in (7) should be V_2 .

^{6.} Felser (2000:178) is not explicit about the status of zijn; she simply generates its inflected form in T.

Accounts (5)–(8) do not map neatly onto the traditional distinction mentioned in §1 between nominal and verbal predicate. Furthermore, from (5)–(8) a second point of discussion emerges not covered by this distinction, namely whether aan(het) is a lexical or functional head. In (6), aan is the head of a regular lexical PP, whereas in (7)–(8) aanhet serves a grammatical function, either as an affixoid or as head of a functional aspectual projection. (5) occupies a middle ground with a lexical P-head augmented with a feature [+asp].

Given the treatment of the *aanhet*-progressive in the syntactic literature, we will move away from the question 'nominal or verbal predicate?' in favor of two interrelated questions: (i) is [aanhet $V_{\rm INF}$] a PP- or VP-complement to zijn, and (ii) does [aanhet]/[aan] head a lexical or functional projection? It follows from previous accounts that these properties cluster together: if aan is a lexical P-head, the entire phrase is a PP-complement; and if aanhet heads a functional projection, it makes for an extended VP-complement. We will argue that the behavior of other aanhet-constructions sheds light on (i)–(ii).

3. Comparison

The *aanhet*-progressive exemplified by (1) (repeated below) is not the only *aanhet*-construction Dutch has to offer. There is a closed set of at least twenty other verbs that may take the place of *zijn* 'be'. For reasons of space, we restrict ourselves to the ingressives – *gaan* 'go' and *slaan* 'hit' – illustrated in (9). Both construe the start of the situation denoted by $[V_{INE}]$.

- (1) Pieter *is aan het opruimen*. 'lit. Peter is on the cleanup: Peter is cleaning up.'
- (9) Pieter *gaat/slaat aan het opruimen*. 'lit. Peter goes/hits on the cleanup: Peter starts cleaning up.'

^{7.} Cf. Haeseryn et al. (1997: 1048–1054); Van Pottelberge (2004: 27–51); Booij (2008: 83–91); Bogaards (2020: 62–91) for classifications of this verb pool; an overview can be found in Bogaards (2020: 60–62).

^{8.} This means we leave outside of consideration causatives, continuatives, copulas, modals and perception verbs. Furthermore, the causative verb zetten 'place' has a reflexive version zich zetten 'place oneself' which is distinguished as an ingressive verb by Van Pottelberge (2004) and Bogaards (2020) but not by Haeseryn et al. (1997) and Booij (2008). We will not include zich zetten here because – as two reviewers point out – it seems to behave differently from gaan/slaan.

Our goal is to show that the types of *aanhet*-construction in (1) and (9) differ syntactically in ways relevant to questions (i)–(ii). The patterns under comparison are given in (10), with the parts of interest marked in subscript: lexical/functional *aanhet* (=L/F) and PP/VP-status of [*aanhet* $V_{\rm INF}$] (=XP).

(10) a. $[[aanhet_{L/F} V_{INF}]_{XP} zijn]$ b. $[[aanhet_{L/F} V_{INF}]_{XP} gaan/slaan]$

To sharpen our comparison, we include two benchmarks. The first is an uncontroversial case of a functional head selecting a VP-complement: the modal auxiliary *moeten* 'must'. The second is a likewise unquestionable case of a lexical head selecting a PP, viz. a PP-complement headed by *aan* selected by the lexical verb *denken* 'think', with a clearly nominalized infinitive embedded in the PP. The benchmarks are schematized and illustrated in (11)–(12).

- (11) a. Benchmark A: Functional head/VP-complement $[moeten_F [V_{INF}]_{VP}]$
 - b. <u>Benchmark B: Lexical head/PP-complement</u> [[aan_L het [V_{INF}]_N]_{PP} denken]
- (12) a. Pieter *moet opruimen*. 'Peter must clean up.'
 - b. Pieter *denkt aan het opruimen*. 'Peter is thinking about the cleanup.'

We take parallel syntactic behavior with respect to these benchmarks as evidence for the status in (10) of XP as VP or PP, and of *aanhet* as lexical or functional. We will discuss five properties, resulting in an overview in § 3.6.

3.1 IPP

It is well-known that auxiliaries such as *moeten* 'must' exhibit the *infinitivus-pro-participio* (IPP) effect (e.g. Broekhuis & Corver 2015: 612–613; Zwart 2011: 309–311), i.e. take the infinitival (*moeten*) rather than the participial form (*gemoeten*) when selected by a perfect auxiliary. Benchmark A indeed exhibits IPP (13) whereas B does not (14). The *aanhet*-progressive in (15) does not have IPP (Broekhuis et al. 2015: 152); neither do the *aanhet*-ingressives in (16).

(13) <u>Benchmark A</u> + Pieter heeft < moeten > opruimen < *gemoeten >. 'Peter has had to clean up.'

(14) Benchmark B

Pieter heeft <*denken> aan het opruimen <gedacht>. 'Peter has thought about cleaning up.'

(15) Aanhet-progressive

Pieter is <*wezen> aan het opruimen <geweest>. 'Peter has been cleaning up.'

(16) <u>Aanhet-ingressives</u>

Pieter is/heeft <*gaan/slaan> aan het opruimen <gegaan/geslagen>. 'Peter has started cleaning up.'

So starting out, both types of *aanhet*-construction pattern with the lexical/PP-benchmark.

3.2 High IA/Prt

A difference between the progressive and ingressive *aanhet*-constructions is that only the former's $[V_{INF}]$ may license an internal argument (IA) (Smits 1987: 290; Booij 2008: 90). A crucial aspect of this difference is not just the possibility, but the position of the IA: it surfaces above *aanhet* in the progressive construction, cf. z'n kamer 'his room' in (19a). This position is unavailable for both the ingressives (20a) and benchmark B (18a).

The high IA in (19a) is surprising at first sight, seeing as the verb doing the licensing is positioned below *aanhet*. However, *aanhet*'s behavior runs parallel to benchmark A (*moeten*) in this respect; auxiliaries like *moeten* are known to surface in between the head of their VP-complement and other VP-material such as V's IA (cf. Barbiers et al. 2018 and references cited there) – see the position of z'n *kamer* above *moeten* (17a).

A second parallel between the *aanhet*-progressive and benchmark A can be found in the positions available for verbal particles (Prt), e.g. *op* 'up' in *opruimen* 'clean up'. It is well-known that there is optionality in the placement of Prt relative to the auxiliary (e.g. Broekhuis et al. 2015: 155), cf. the two possible positions for *op* in (17b). This optionality also holds for the *aanhet*-progressive in (19b), with the

^{9.} This is not to say the *aanhet*-progressive is limited to taking an IA – other arguments/ adjuncts are also possible.

^{10.} As one reviewer points out, apparent exceptions are cases where the IA is a generic noun below *aanhet*, e.g. the bare singular *aardappel* 'potato' in *dat de boer aan het aardappelrooien is* 'that the farmer is lifting potatoes' (from Schuurman & Wierenga 1986: 347). We follow Booij (2010: 159–163) in analyzing such cases as quasi-incorporation, which we set aside here because it is independent from the (un)availability of high IA.

same two positions for *op* relative to *aanhet*. A new observation we can make here is that high Prt is not available for the *aanhet*-ingressives (20b). Likewise, benchmark B only allows low Prt (18b).

(17) Benchmark A

- a. dat Pieter <*z'n kamer*> *moet* <**z'n kamer*> *opruimen* 'that Peter has to clean his room'
- b. dat Pieter *<op> moet <op>ruimen* 'that Peter has to clean up'

(18) Benchmark B

- a. dat Pieter <*z'n kamer> aan het <*z'n kamer> opruimen denkt 'that Peter is thinking about cleaning (*his room)'
- b. dat Pieter <*op> aan het <op>ruimen denkt 'that Peter is thinking about cleaning up'

(19) <u>Aanhet-progressive</u>

- a. dat Pieter <*z'n kamer*> aan het <**z'n kamer*> opruimen is 'that Peter is cleaning his room'
- b. dat Pieter *<op> aan het <op>ruimen* is 'that Peter is cleaning up'

(20) <u>Aanhet-ingressives</u> -

- a. dat Pieter <*z'n kamer> aan het <*z'n kamer> opruimen gaat/slaat 'that Peter starts cleaning (*his room)'
- b. dat Pieter <*op> aan het <op>ruimen gaat/slaat 'that Peter starts cleaning up'

Thus, with regard to the position of IA and Prt, (17)–(20) show that the *aanhet*-progressive patterns with the functional/VP-benchmark, and the *aanhet*-ingressives with the lexical/PP-benchmark.

3.3 Complex verb constructions

A remarkable property shared by the *aanhet*-progressive and -ingressives is that *aanhet* largely resists taking scope over complex verb constructions – that is, verbs such as *kunnen* 'can' or *zullen* 'will' that might select $[V_{\rm INF}]$. In the scope hierarchy articulated by Coussé & Bouma (2022: 163), *kunnen* and *zullen* are 'intermediate' and 'high level' verbs. When it comes to lower level verbs in this hierarchy, however, the progressive is less restrictive than the ingressives. The causative verb *laten* 'let' and the verb *leren* 'learn' – 'low level' verbs in Coussé & Bouma's hierarchy – are both unproblematic in the progressive (Peter-Arno Coppen, p.c.), see (23). The same goes for benchmark A (21). However, combining these verbs

with the ingressives produces ungrammatical results (24). Notably, benchmark B – with a nominalized $[V_{INF}]$ – has no issue with this; *laten* and *leren* can themselves be nominalized and inserted above $[V_{INF}]_N$ (22). This suggests that inserting a low level verb is not dependent on the (nominalized) status of $[V_{INF}]$ in the *aanhet*-ingressives. An alternative explanation might be the status of *aanhet* itself: if *aanhet* does not project a PP here (as we will argue in §3.5), whatever it does project is apparently too low in the syntax to host a verb like *laten* or *leren* (cf. §5).

(21) Benchmark A

Pieter moet <z'n kamer *laten opruimen*> <*leren* opruimen>. 'Peter has to have his room cleaned.' / 'Peter has to learn to clean up.'

(22) Benchmark B

Peter denkt aan het *<laten* opruimen van z'n kamer> *<leren* opruimen>. 'Peter is thinking about having his room cleaned.' / 'Peter is thinking about learning to clean up.'

(23) Aanhet-progressive

Pieter is <z'n kamer aan het *laten* opruimen> <aan het *leren* opruimen>. 'Peter is having his room cleaned.' / 'Peter is learning to clean up.'

(24) <u>Aanhet-ingressives</u> -

Pieter gaat/slaat <*aan het *laten* opruimen van z'n kamer> <*aan het *leren* opruimen>.

(Intended: 'Peter starts having his room cleaned.' / 'Peter starts learning to clean up.')

Coussé & Bouma (2022) distinguish one more scope level: the 'lowest level' verbs, which include the passive auxiliary worden 'be', e.g. opgeruimd worden 'be cleaned up'. It has been pointed out that the aanhet-progressive cannot combine with the passive (Smits 1987: 286; Verhagen 1992: 336,fn.8; Boogaart 2016a), which would cast doubt on the idea that the contrast in (23)–(24) is a matter of hierarchical scope position. Comparing the aanhet-progressive with the ingressives, however, makes it clear that combining passive and progressive is not in fact categorically out; it may be marginal (25) but is not totally ungrammatical, whereas this is undoubtedly the case for the ingressives (26).

(25) <u>Aanhet-progressive</u>

[?]Pieters kamer is opgeruimd aan het worden.

'Peter's room is being cleaned.'

(26) <u>Aanhet-ingressives</u>

*Pieters kamer gaat/slaat opgeruimd aan het worden. (Intended: 'Peter's room starts being cleaned.')

Indeed, as Boogaart (2016a: 35) observes, cases like (25) are actually attested, as (27)-(28) illustrate.¹¹

(27) Een animatie van de replica die *gebouwd aan het worden* is.

'An animation of the replica that is being built.'

(https://www.rtvdrenthe.nl/nieuws/121164/uniek-fokker-jachtvliegtuigwordt-nagebouwd-in-hoogeveen)

(28) Deze veelbelovende rol die aan miRNA therapeutica wordt toegeschreven, is reeds in andere velden *in praktijk gebracht aan het worden*.

'This promising role that is being attributed to miRNA therapeutics, is already being put into practice in other fields.'

(https://libstore.ugent.be/fulltxt/RUG01/002/061/650/RUG01-002061650 _2013_0001_AC.pdf)

Summing up, the *aanhet*-progressive is less restrictive than the *aanhet*-ingressive with respect to taking scope over complex verb constructions. Considering that the progressive allows some verbs but not others, we will generalize over its mixed behavior in (23) and (25) with the '±'-sign.

3.4 Van-objects

Nominalized verbs allow expressing V's IA in a *van*-PP (e.g. *van z'n kamer* 'of his room' in benchmark B (30)). This is clearly unacceptable for benchmark A (29). It has been observed that the *aanhet*-progressive does not allow this either (Smits 1987: 287; Broekhuis et al. 2015: 154), see (31). For the *aanhet*-ingressives, a *van*-object does seem possible (32). While cases like (32) may be marked and rare in actual usage, they are certainly a great deal better than (31).

- (29) <u>Benchmark A</u> Pieter moet opruimen <*van z'n kamer>. 'Peter has to clean up (*of his room).'
- (30) Benchmark B +
 Pieter denkt aan het opruimen < van z'n kamer>.

 'Peter is thinking about the cleaning up of his room.'
- (31) Aanhet-progressive Pieter is aan het opruimen <*van z'n kamer>. 'Peter is cleaning up (*of his room).'

^{11.} All attestations are from either the internet (Google searches) or the SoNaR corpus (https://opensonar.clarin.inl.nl).

(32) *Aanhet-*ingressives

Peter gaat/slaat aan het opruimen <van z'n kamer>.

'Peter is starting the cleaning up of his room.'

Attestations can be found of both aanhet-ingressives taking a van-object:12

(33) Binnen netwerken is men voorzichtig aan het verschuiven gegaan van signalen en frequenties.

'Within networks people have cautiously started shifting signals and frequencies.' (SoNaR WR-P-E-C-000009572)

(34) Zo druk slaan de dames zelfs aan het afwegen *van voor- en nadelen van bepaalde beleggingen* dat mevrouw de voorzitster meerdere malen naar de bel moet grijpen, [...].

'The ladies start weighing pros and cons of certain investments so frantically that the chairwoman has to ring the bell several times.'

(SoNaR WR-P-P-H-0000024740)

So, looking at *van*-objects, the *aanhet*-progressive patterns with the functional/VP-benchmark and the *aanhet*-ingressives with the lexical/PP-benchmark.

3.5 R-extraction

A well-known property of PP-objects and PP-predicates in Dutch is that P's complement can be R-extracted, for instance under relativization (cf. Broekhuis 2013: 258–267 and references cited there). As expected, R-extraction is possible with benchmark B (35). The diagnostic is irrelevant for benchmark A since there is no (apparent) PP. It has been observed that the *aanhet*-progressive does not allow R-extraction (Bogaards *under review*), see (36). The same goes for the *aanhet*-ingressives (37).

- (35) Benchmark B + [het opruimen]_i waar Pieter [aan t_i] denkt 'the cleaning up Peter's thinking about'
- (36) Aanhet-progressive *[het opruimen]_i waar Pieter [aan t_i] is (Intended: 'the cleaning up Peter's doing')
- (37) Aanhet-ingressives *[het opruimen]_i waar Pieter [aan t_i] gaat/slaat (Intended: 'the cleaning up Peter's starting')

^{12.} A set of corpus queries in SoNaR looking for these combinations yielded 5 total hits (2x *gaan*, 3x *slaan*), aligning with the intuition that they are rare but do occur.

This suggests that while the *aanhet*-ingressives behave like the lexical/PP-benchmark in several respects, they are not built around an ordinary PP.

3.6 Overview

Table 1 gives an overview of the properties examined in this section. Bold outlines mark overlap in syntactic behavior with the *aanhet*-progressive, which patterns together with the *aanhet*-ingressives twice. The progressive patterns with benchmark A twice and B once, whereas the *aanhet*-ingressives pattern with benchmark B three times, and not at all with benchmark A. When it comes to these properties, the ingressives are thus more similar to benchmark B than to the progressive. And vice versa, the progressive is just as similar to benchmark A as to the ingressives.

Table 1. Syntactic behavior of *aanhet*-constructions compared to functional and lexical benchmarks

	Benchmark A: Functional head			Benchmark B:
				Lexical head
	VP-complement		P	P-complement
	[aatau	$[[aanhet_{L/F}[V_{INF}]]_{XP}V]$		[[aan _L het
	$[Moeten_{F}]$ $[V_{INF}]_{VP}]$	V=zijn	V= gaan/slaan	$[\mathrm{V}_{\mathrm{INF}}]_{\mathrm{N}}]_{\mathrm{PP}}$ denken]
1. IPP	+	_	_	_
2. High IA/Prt	+	+	_	_
3. Complex verb constructions	+	±	_	+
4. Van-objects	_	_	+	+
5. R-extraction	n/a	_	_	+

Important to note is that these properties seem to hold of [aanhet $V_{\rm INF}$] as such, even without V present, depending only on [aanhet $V_{\rm INF}$]'s interpretation (ingressive/progressive). To illustrate, (38)–(39) are examples of [aanhet $V_{\rm INF}$] in constructions without any matrix verb (cf. Van Pottelberge 2004:51): a directive PP in (38), which triggers an ingressive interpretation; and a bare 'status update' PP without finite verb in (39), getting a progressive reading. Since these uses get ingressive/progressive readings themselves, the aanhet-construction matches their aspectual value. Without any matrix verb present, (38) allows high IA/Prt and the low level complex verb leren 'learn', whereas (39) does not – in line with

^{13.} Other contexts in which the *aanhet*-construction occurs without matrix verb include the 'dus'-construction (Andree 2022) and 'en maar'-construction (Broekhuis & Corver 2017).

rows 2–3 in Table 1. This suggests to us that these are primarily properties of [aanhet V_{INF}] rather than [[aanhet V_{INF}] zijn/gaan/slaan] as a whole.

- (38) <u>'Status update' PP (progressive)</u>
 Momenteel (de kamer) < op> aan het (leren) < op>ruimen.
 'Currently (learning) cleaning up (the room).'
- (39) <u>Directive PP (ingressive)</u>
 Vooruit, (*de kamer) <*op> aan het (*leren) <op>ruimen!
 'Come on, (*learn to) clean up (*the room)!'

Before turning to our syntactic proposal, we will discuss one semantic difference.

4. Coercion

A further difference between the two types of *aanhet*-constructions distinguished here is their capacity to coerce the aspectual type of $[V_{INF}]$. Coercion in the aspectual domain has been described since at least Moens & Steedman (1988) and concerns the interaction of grammatical and lexical aspect: if the latter conflicts with the constraints of the aspectual construction it combines with, the result is not necessarily ungrammatical but the situation type may be reinterpreted to fit the demands of the construction (de Swart 1998; Michaelis 2004). Both the progressive and ingressive *aanhet*-constructions require a $[V_{INF}]$ that is dynamic and durative (i.e. either an *activity* or an *accomplishment* in the sense of Vendler 1967). But whereas the progressive construction may establish a type shift, the ingressives cannot.

For example, combining progressive *aanhet* with non-durative achievements like *vertrekken* 'leave', *stoppen* 'stop' and *winnen* 'win' results in a durative reading in (40a), presenting the process leading up to the actual leaving/stopping/winning, whereas no such coercion readings are available for ingressive *aanhet* in (40b).

- (40) a. Pieter *is aan het vertrekken/stoppen/winnen*. 'Peter is leaving/stopping/winning.'
 - b. *Pieter *gaat/slaat aan het vertrekken/stoppen/winnen*. (Intended: 'Peter starts leaving/stopping/winning.')

In addition to imposing durative readings on $[V_{INF}]$, progressive *aanhet* may shift a non-dynamic (*state*) to a dynamic situation type (*activity*), as in the Dutch book title *Wie ik aan het zijn was* 'Who I was being' (cf. Boogaart 2016b). Such cases are

marked but do occur (41). Again, this type of coercion is unavailable for ingressive *aanhet* (41').

- (41) Inmiddels *is* achter mij een hele stoet auto's aan het toeteren en *boos aan het zijn* omdat ik stilsta.

 'Meanwhile a long line of cors is honking and being angry behind me because
 - 'Meanwhile a long line of cars is honking and being angry behind me because I'm not moving.' (Internet, cited in Boogaart & Bogaards *in prep.*:§30.2.3.1.2)
- (41') *Pieter gaat/slaat aan het boos zijn.
 (Intended: 'Peter starts being angry.')

It is not clear whether these facts can be accounted for in terms of the syntactic differences from § 3. If progressive *aanhet* is more functional than ingressive *aanhet* (as we will argue in § 5), then one line of reasoning could be that its range is extended to include more lexical types. We leave the potential relation between functional/lexical status and coercion as an interesting open question here.

5. Analysis

In § 3, we compared two types of [aanhet $V_{\rm INF}$]: progressive [[aanhet $V_{\rm INF}$] zijn] and ingressive [[aanhet $V_{\rm INF}$] gaan/slaan], concluding that the former aligns more with the functional/VP-benchmark and the latter more with the lexical/PP-benchmark. We account for these facts by assuming that there are two synchronic aanhet-projections in Dutch: one gets a progressive reading and combines with zijn, the other gets an ingressive reading and combines with gaan/slaan. We call them Aanhet1 (progressive) and Aanhet2 (ingressive). Aanhet1 and Aanhet2 exhibit gradual differences regarding functional/lexical status. Taking benchmarks A-B as the tail ends of a synchronic functional-to-lexical cline in Figure 1, Aanhet1 and Aanhet2 occupy intermediate positions, which can be understood as shades of semi-lexicality in the sense of Cavirani-Pots (2020).

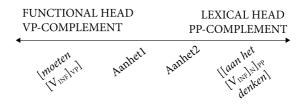


Figure 1. Functional-to-lexical cline with relative positions of benchmarks A-B and Aanhet1–2

Given Figure 1, we can draw up a syntactic hierarchy in the spirit of Cinque (1999). In (42), the modal head Mod (e.g. *moeten* 'must') is higher than Aanhet1, which in turn is above the causative head Caus (e.g. *laten* 'let') and, finally, Aanhet2.

(42) Mod>Aanhet1>Caus>Aanhet2

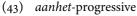
The order in (42) aligns with the observation that Aanhet1 behaves more similarly to *moeten* than Aanhet2 ($\S 3.2/\S 3.4$), as well as the fact that Aanhet2 cannot take scope over complex verb constructions ($\S 3.3$). Analyzing both Aanhet1 and Aanhet2 as something other than a PP accounts for them prohibiting R-extraction ($\S 3.5$).

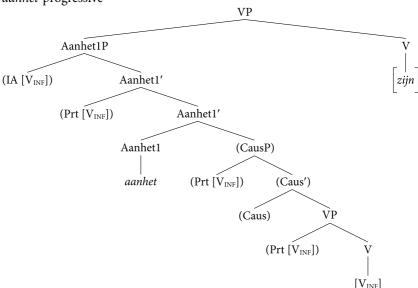
What about the matrix verbs that Aanhet1P and Aanhet2P combine with (i.e. zijn vs. gaan/slaan)? Given that none of these verbs exhibit IPP (§3.1), ¹⁴ we assume that, in these particular constructions, they are regular lexical V-heads – not functional ones – selecting Aanhet1/2P. All the (im)possible positions for CausP and [V_{INF}]'s IA/Prt can then be derived from the internal structure of Aanhet1/2P. This also means that we can tie the viewpoint-aspectual semantics (progressive/ingressive) to Aanhet1/2P, following Felser (2000) and IJbema (2003). Aanhet1P then requires semantic concord with the matrix verb zijn, Aanhet2P with gaan/slaan.

In (43)–(44), we give the full structures of Aanhet1P and Aanhet2P and their respective Vs. Optional positions are in round brackets. Aanhet1 selects VP and Aanhet2 NP, which covers the (im)possibility of licensing a van-object (§ 3.4), as well as Aanhet1's but not Aanhet2's behavior as an extended projection of [V_{INF}] regarding IA/Prt. In other words, we claim that Aanhet1 is an extended projection of VP and Aanhet2 an extended projection of NP (cf. Grimshaw 2005). Neither are PPs.

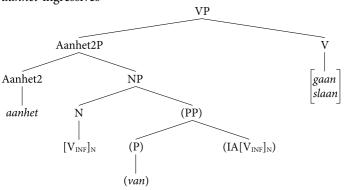
^{14.} One reviewer points out that the *aanhet*-progressive is unique in Standard Dutch syntax as a seemingly functional construction without IPP. This property therefore plays a central role in our analysis: it is our most important argument for characterizing Aanheti as 'less functional' than auxiliaries like *moeten*; it leads us to analyze *zijn* (as well as *gaan/slaan*) as lexical V-heads not triggering IPP; and this in turn prompts us to situate the differences between the *aanhet*-progressive and -ingressives primarily in the internal structure of Aanheti/2P.

^{15.} As mentioned in §3.3, Aanhet2 is sensitive to the type of $[V_{INF}]_N$ it selects, prohibiting nominalizations with complex verb constructions like *laten* 'let' and *leren* 'learn'.





(44) aanhet-ingressives



Taken together, (42)–(44) predict that *Aanheti* may take scope over *Aanhet2* but not the other way round. The patterns in (45) are thus expected given our analysis.

- (45) a. Pieter is₁ [[aanhet₂ opruimen] aanhet₁ slaan₂]. 'Peter is starting to clean up.'
 - b. *Pieter slaat₂ [[aanhet₁ opruimen] aanhet₂ zijn₁].
 (Intended: 'Peter is starting to be cleaning up.')

Our synchronic analysis is compatible with IJbema's (2003) diachronic account postulating that the *aanhet*-progressive developed from a lexical PP-structure in a process of grammaticalization. If Dutch *aanhet*-constructions indeed derive from

a PP with an embedded nominalized infinitive, then the *aanhet*-progressive and -ingressives differ in the number of steps taken away from their lexical origins. Further diachronic study is needed to establish whether our account aligns with the actual pathway of change.

6. Conclusion

We have argued that Dutch has more than one *aanhet*-construction – not just in terms of aspectual semantics, but also syntactically. Based on several observations, we claimed that there are two distinct synchronic projections headed by *aanhet*: progressive Aanhet1 and ingressive Aanhet2, which differ in hierarchical position (Aanhet1>Aanhet2), functional/lexical character, and status as extended projection of VP/NP. The matrix verbs (*zijn* 'be' vs. *gaan* 'go' and *slaan* 'hit') have identical structural status in our view. A relevant next step for further research is to examine whether and how our analysis can be extended to the other matrix verbs from the *aanhet*-pool: causatives, continuatives, copulas, modals and perception verbs. Given that these verbs differ from *zijn/gaan/slaan* in syntactically relevant ways, an integral analysis of *aanhet*-constructions in Dutch needs to account for these combinations as well.

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Address for correspondence

Maarten Bogaards Leiden University Centre for Linguistics P.O. box 9515 2300 RA Leiden The Netherlands m.p.m.bogaards@hum.leidenuniv.nl

Co-author information

Ronny Boogaart Leiden University Centre for Linguistics r.j.u.boogaart@hum.leidenuniv.nl Sjef Barbiers Leiden University Centre for Linguistics l.c.j.barbiers@hum.leidenuniv.nl

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